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ABSTRACT

This workbook is intended to teach education students information about basic library resources and information gathering techniques that are important in conducting educational research or writing a research paper. Most chapters are in the form of assignments which require students to use the reference materials for a specific purpose. Chapter 1 provides an annotated list of six guides to research methods in education. Chapter 2 briefly discusses the process of selecting and identifying a topic. Chapter 3 describes four guides to current reference sources. Chapter 4 provides an annotated guide to four subject encyclopedias and dictionaries in the field of education. Chapter 5 is a guide to six handbooks and yearbooks in education. Chapter 6 introduces the use of six bibliographies of bibliographies. Chapter 7 explains the use of 10 indexes and abstracts. Chapter 8 explains how to find relevant Federal government publications. Chapter 9 describes five directories of organizations and leaders in education. Chapter 10 lists six statistical sources, most specific to education. Chapter 11 is an overview of online information sources including ERIC (Educational Resources Information Center) and the Internet. Chapter 12 discusses periodicals and newspapers. (JLS)

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A RESEARCH WORKBOOK FOR EDUCATION STUDENTS

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Introduction

The purpose of this workbook is to focus on basic library resources and information gathering techniques that are important for conducting educational research. The sources listed in the workbook are by no means comprehensive, however; they are considered as primary sources. Every education student should be aware of them and prepared to use them when writing a research paper. Bogdan and Biklen maintain that novice writers are big procrastinators. They find countless reasons not to get started. Even when they finally get themselves seated at their desks, they always seem to find diversions: make the coffee, sharpen the pencil, go to the bathroom, thumb through more literature, sometimes even get up and return to the field. Remember that you are never 'ready' to write; writing is something you must make a conscious decision to do and then discipline yourself to follow.[1]

Students should be aware of the available library services and resources if they are to conduct effective research and achieve successful results. Students must be particularly cognizance of such research sources such as encyclopedias, handbooks, government documents, statistics, indexes and abstracts in the field of education if they are to conduct a careful investigation of their chosen topics. A functional knowledge of the Library of Congress classification system is important as well as the knowledge and skill to utilize current library technology to access and retrieve information is essential in conducting quality research. Proficiency in using the online public access catalog (opac) and the various online journal databases has become a required skill regardless of the researcher's subject field. Library instruction at most academic institutions has incorporating electronic searching techniques including searching the Internet in their bibliographic instruction programs. Achieving the best instructional results requires hands-on searching exercises that allow students to participate in on-site training to attain competency and experience needed to master electronic searching techniques. Library guides are usually made readily available to aid users in becoming aware of the services and resources offered by their libraries. Reference librarians continue to remain the mainstay in lending assistance and providing instruction to users who are seeking information or need research assistance.

Because of the explosion of library technology, education students must be prepared to master increasingly sophisticated skills which are required to access many different sources of information using the electronic networks. Electronic systems allow computers to communicate information over vast distances rapidly. Benson states that if we consider the rapid growth of information available in electronic form, we cannot fail to comprehend the significance of the Internet.[2] The Internet is a resource constantly used by both librarians and students to locate information which cannot be found using traditional sources. It is also well to remember that information found on the Internet can be very ingenious and worthwhile, but it can also be unverifiable, misleading and inappropriate for research purposes.

Berry notes that the writing of a research paper or report requires some knowledge of the methodology of research, including selection of a problem, review of the literature, types of research, tools of research, and data analysis.[3] Form and style handbooks should also be consulted before writing a paper and while the writing is in progress. Several of

these handbooks are discussed in Chapter 1 for the readers' information.

The following are suggested guidelines that can be used by students to move through the research process in a precise and orderly manner:

I. Choose a topic (general topic of interest to you)

II. Finding general background information and vocabulary (education encyclopedias and dictionaries)

III. Narrowing the topic (monographs, encyclopedias, handbooks, bibliographies)

IV. Formulate a thesis and/or outline

V. Consult appropriate references sources (directories, statistical sources, indexes, abstracts, and book reviews)

VI. Conduct a literature search (indexes and abstracts to obtain current information)

VII. Evaluate and organize data (reliable sources, selective bibliographies)

VIII. Determine research design (experimental, correlational, descriptive)

X I. Collect additional information if necessary

X. Write the first draft of the research paper

Chapters 2 through 12 list objectives that student are asked to accomplish after reading each chapter. Questions relative to stated objectives in each chapter are included at the end of the chapter. Hopefully, these questions will encourage the students to use the resources in a their research assignment. The bibliographic resources included in the workbook were selected because the author considered them important sources of educational information and also because most of them are readily available in academic libraries having teacher education programs.

According to Bell, preparation is the key to completing a successful research project. We all learn to do research by actually doing it, but a great deal of time can be wasted and goodwill dissipated by inadequate preparation.[4] Understanding and addressing the research basics are critical for the ultimate success of a research project. I hope this workbook will help education students to approach their research assignments as a challenge and a pleasurable experience that will help them improve their research capabilities and skills.

Chapter 1

METHODOLOGY OF RESEARCH

Using a systematic approach when conducting research is likely to result in a high quality study and a satisfying experience rather than an arduous drill that produces little of research value. Systematic planning can help students identify and investigate topics that stimulate their curiosity and interest. Ross and Morrison believe that a shot-gun marriage with a topic area that doesn't interest you, but your advisor imposes or a colleague suggests, is almost certain to be an unpleasant experience. Research can be fun and exciting when you have a natural curiosity about the subject; it can be drudgery when you do not.[5]

Writing a research paper requires a basic knowledge of research methodology. Such knowledge includes the selection of a topic, review of the literature relevant to the topic, various types of research, research sources, and data analysis. The continued growth and development of new information technologies continues to impact the researchers' ability to gain ready access to a multitude of information and resources. A student involved in a research project can benefit greatly by acquiring training in the use of the new library technology such as the online public access catalog, journal databases online and information available on CD-ROMs. These new informational formats not only increase the researchers self-reliance and expertise with electronic systems but also reduce many hours of futile searching and frustration.

The following is a list of guides about research methodology which may be helpful to education students performing research:

Introduction to Educational Research. New York: Longman, 1988.

Primarily a handbook for graduate students. Contains 12 chapters: 1. Educational Research: Process and Promise; 2. How Research Begins; 3. Locating Resources in the Library; 4. Making Sense of Published Research; 5. How Research Is Planned; 6. Historical and Descriptive Research; 7. Correlational Research; 8. Causal-Comparative and Experimental Research; 9. Research and Development; 10. Statistical Procedures: Samples and Descriptions; 11. Statistical Procedures: Differences, Relationships, and Significance; 12. Preparing Research Reports. A summary of each subject is included at the end of each chapter. Includes a glossary and an index.

Introduction to Research in Education. New York: Harcourt, Brace, Jovanovich, 1990.

The focus of this book is the provision of a text designed for use in an introductory course in educational research. Its aid is to familiarize the beginning researcher with the procedures for conducting an original research project. It covers the typical and practical problems encountered in research, beginning with the formulation of the question and continuing through the preparation of the final report.

Research in Education. Englewood Cliffs, N.J.: Prentice-Hall, 1986.

A detailed guide which is useful as an introductory course in educational research or as a reference source for research. It guides the reader step-by-step through the essential aspects of conducting research in education. Nine appendices contain statistical formulas and symbols, tables, grouped data, computations, research course, report evaluation, answers to statistics exercises, selected indexes, abstracts, and reference materials. An author index and a subject index are included.

Research in Education: A Conceptual Introduction. New York: Longman, 1997.

This book presents a comprehensive, yet relatively nontechnical introduction to the principles concepts, and methods currently used in educational research and assists students in attaining skills in reading, conducting, and understanding research.

Research Methods in Education: A Practical Guide. Englewood Cliffs, N.J.: Prentice-Hall, 1984.

A reference work designed as a guide for those planning to do research in schools. Contains 11 chapters with exercises included at the end of Chapters 1 through 10. Chapter headings are as follows: 1. Purpose of Research Design; 2. Experimental Comparison Designs; 3.Single-Case Experimental Designs; 4. Nonexperimental Designs; 5. Measures and Sampling; 6. Internal and External Validity; 7. Planning the Study; 8. Getting Access to Schools and Implementing the Project; 9. A Practical Guide to Statistics; 10. Statistics by Computer; 11. Writing Up the Project. Contains 5 appendices, a glossary, list of references, and an index.

Doing Your Research Project: A Guide For First-Time Researchers In Education and Social Science. Bristol, Penn.: Open University Press, 1993.

Intended for those who are about to undertake educational research in connection with their jobs, or as a requirement for an undergraduate or post-graduate course. This book's aims is to provide researchers with the tools to do the job, to help them avoid some of the pitfalls and time-wasting false trails, to establish good research habits and to take them from the stage of selecting a topic through to the production of a well-planned, methodologically sound and well-written final report. Contains an extensive bibliography and an index.

Chapter 2

SELECTING AND IDENTIFYING A TOPIC

Selecting a topic for a research paper is a very difficult task for many students. Experienced researchers advise students to select a topic that is of interest to them when possible. Topics assigned by an instructor or selected randomly by the student may become a burdensome task and result in an unrewarding rather than an enjoyable experience. Selecting a topic that piques one's curiosity and stimulates one's imagination usually provides the incentive to make the research project exciting and a personal triumph. When choosing a topic, begin broadly and then narrow the possible topics on the basis of your own interest and the resources that are available.

Students must always consider the time frame and the page limitation prior to choosing a topic to research. A frequent mistake made by many students is the selection of a topic that is too broad to be researched adequately within the prescribed limitations set forth by the instructor. For example, it would not be feasible for a student to attempt to write a ten page research paper or report about the history of mathematics education in the United States and do justice to this very broad topic. It would be very difficult to cover such a topic adequately within the confines of ten pages. A better approach would be to narrow the topic and allow it to focus upon a smaller aspect of mathematics education. Perhaps limiting the topic to "gender discrimination of female elementary school students in mathematics education in the United States" would narrow the subject significantly and allow a more comprehensive investigation of the topic. This is just an example of how a broad topic can be narrowed down to a more manageable aspect so that it complies with the page limitations and maintains the time frame allowed for paper's completion.

Once a topic is selected, the detailed investigation can begin. Students should now seek a few authoritative summary discussions which are pertinent to the key terms of their topics. Students can begin by seeking background information about their topics from various sources such as subject encyclopedias, handbooks, and yearbooks. These references sources serve as excellent starting points and are very useful in helping students identify and gain basic information about their topics. The articles contained in most major subject encyclopedias are written by accomplished scholars and experts in the subject field and contain well documented bibliographies appended at the end of the articles. Cross references to other germane encyclopedia articles are usually included. If only sparse information is available about the chosen subject, it may be wise to consider selecting another topic.

Students can now conduct a literature search using key words or terms to locate journal articles, books, and other types of documents relevant to their topics using an online catalog, journal databases, and even the Internet if available. The use of an online catalog and online journal databases allows students to conduct comprehensive searches quickly and accurately to find materials about their topics.

The next chapter includes a few selective guides to the literature that are very useful in introducing students to various types of education reference sources.

Chapter 3

GUIDES TO THE LITERATURE

Objective 1: Using the Humanities subject field, students will locate the subtopic Education in the American Reference Books Annual and identify a subject handbook.

Objective 2: Using the Guide to Reference Books, students will locate a bibliographic guide.

Contains available reference sources in various subject areas. Guides contain many different types of reference sources including such items as bibliographies, directories, dictionaries, encyclopedias, handbooks, indexes, and more. The ARBA is an excellent guide that identifies the most current published reference sources:

American Reference Books Annual. Littleton, Colo.: Libraries Unlimited, 1970-.

A comprehensive annual reviewing service for English-language reference books that is published annually in the United States and Canada. Includes dictionaries, encyclopedias, indexes, directories, atlases, gazetteers, yearbooks, handbooks, almanacs, bibliographies, and some government publications. Entries include bibliographic information and reviews that are descriptive and critical. The four major divisions are I) General Reference Works; II) Social Sciences; III. Humanities; IV) Science and Technology. The major parts are divided into subtopics. Each volume contains an author-title index and a subject index.

A Bibliographic Guide to Educational Research. Metuchen, N.J.: Scarecrow Press, 1990.

An annotated bibliography of sources useful for research in the field of education. Emphasis is based on basic sources and recently published works representative of various aspects of the field. Arrangement is by type of material. Most of the new titles were published between 1980 and 1989 while many works published between 1975 and 1980 have been retained. Most of the publications included are American. All entries include annotations. Author-editor and title indexes are also provided.

A Guide to Reference Books: Covering Materials 1985-1990. American Library Association, 1992.

A comprehensive guide to 4,668 scholarly reference works in English and foreign languages. Major sections are: A) General Reference Works; B) The Humanities; C) Social and Behavioral Sciences; D) History and Area Studies; E) Science, Technology, and Medicine. There are 48 subsections under the major sections. Entries include bibliographic information and a descriptive annotation.

Education is a subdivision under Social and Behavioral Sciences, and is subdivided into various aspects of the field. Index of authors, titles and subjects.

A Guide to Sources of Educational Information. Arlington, Va.: Information Research Press, 1982.

Although somewhat dated, this remains an excellent reference source of educational information. It contains approximately 700 print, nonprint, and organizational resources. Organized into 20 chapters which are grouped into five parts. Each entry includes bibliographic data, price, and annotation. Part I, Effective Research; Part II, Printed Research Tools; Part III, Special Subjects; Part IV, Nonprint Sources; and Part V, Follow-Through. Includes author, title,and subject indexes.

Assignment for Chapter 3

1. Using the American Reference Books Annual for 1995, locate a handbook about research on curriculum and

   a) Give the name of the editor.

   b) Give the title and publisher of the handbook.

2. Using the Guide to Reference Books for 1992, locate a bibliography under the topic Education/Teachers and Teaching about teacher attitudes and

   a) Give the name of the author.

   b) Give the page number where you found this entry.

Chapter 4

SUBJECT ENCYCLOPEDIAS AND DICTIONARIES

Objective 1: After reading this chapter, students will understand how to use encyclopedic sources to obtain background information about a subject.

Objective 2: Given a subject field in education, students will understand how to locate an article about the subject by an expert in that field.

Objective 3: Given a term in education, students will use an education dictionary to locate a definition of the term.

General encyclopedias contain information about many different subjects, but subject encyclopedias concentrate on specific fields of knowledge and provide summaries of discussions about those topics. Most encyclopedic articles are written and analyzed by subject field scholars and include historical data about the topic. Most of the articles have appended bibliographies listing major studies and books about the topics. Cross references to other articles which are germane to the topics being investigated are usually included. The following is a list of subject encyclopedia in education that are useful to education students conducting in research projects:

ENCYCLOPEDIAS

American Educators' Encyclopedia. Westport Conn.: Greenwood Press, 1991.

A single volume that contains nearly 2,000 brief entries ranging from abacus to z-score. A very good source for verifying information about education. The references provide an excellent starting point, but the work is certainly not comprehensive. The 27 appendices contain information ranging from the Caldecott and Newbery winner lists to the past presidents of many national organizations. A very concise and functional resource. Includes an abbreviations and acronyms list.

Encyclopedia of Early Childhood Education. Hamden, Conn.: Garland, 1992.

A single volume that explores the historical, philosophical, sociocultural, political, and economical aspects of early childhood education. It also contains information about curricula, educators, children, observation methods, literature, and peer culture. Each chapter is preceded by a short introductory essay followed by articles written by experts in the fields related to children. This work is devoted to research, however, it also includes a list of national advocacy organizations, curriculum preparation, achievement tests, demographics regarding pregnant teens, and school desegregation and the concomitant court cases.

Encyclopedia of Educational Research. New York: Macmillan, 1992.

A four volume set that provides an excellent overview of the current status of research in education. The articles cover relatively broad topics about research in a variety of educational subjects. Each article is accompanied by an excellent bibliography. There is an extensive index that leads the user to more specific topics, and a list of acronyms in the index to assist the user when reading about a subject area. The lack of a table contents makes using this source more difficult to use than it should be.

DICTIONARIES

Almost all academic disciplines have their own specialized language or jargon. Subject dictionaries can be useful in finding concise definitions of any words, terms, or concepts in a discipline with which they are not familiar. Definition of the words, terms, and concepts used in a specific discipline are usually contained in subject dictionaries. Two examples of subject dictionaries in the field of education are described below:

Dictionary of Educational Acronyms, Abbreviations, and Initialisms. Phoenix, Ariz.: Oryx, 1985.

Part I contains 4,000 acronyms and other short forms that are arranged alphabetically. Part II contains the reverse list for the short forms of the acronyms, abbreviations, and initialisms.

Facts on File Dictionary of Education. New York: Facts on File, 1988

Covers theory, practices, terms, concepts, laws, institutions, people, and resources for the preschool through the high school levels. Includes more than 5,000 descriptive entries and special kinds of entries such as biographies, court cases, publications, laws, organizations, and tests.

Assignment for Chapter 4

1. To investigate the subject "cerebral dominance" as a possible topic for your research paper, use an education encyclopedia to gather background information about this subject.

    a) Give the title of the encyclopedic source that you used and the page number on which you located an article about cerebral dominance.

    b) Give the name of the author of the first bibliographic entry appended to the article about cerebral dominance.

2. Provide the definition for the abbreviations AFT and NEA as they relate to teachers unions. Give the source and pages where you located this information.

3. Find the definition of the term "unfair labor practice" in an education dictionary and give the title of the source that you used and the page number(s) where you located the information.

Chapter 5

HANDBOOKS AND YEARBOOKS

Objective 1: Students will be able to use a handbook to locate information about a topic.

Objective 2: Students will be able to use a yearbook to locate information about commercially published tests.

A handbook can be described as a treatise on a special subject which is designed for quick reference about a single broad subject area. It contains concise information and is written primarily for practitioners and emphasizes generally accepted data rather than the most recent findings. There are two types of handbooks, statistical oriented and subject oriented. Subject handbooks will be discussed in this chapter and statistical handbooks in a later chapter.

Yearbooks are similar to handbooks in that they provide an overview of a subject area but differ in that they are an annual compendium of facts and statistics of the preceding year about a particular subject. Subject related yearbooks are useful for students who are reviewing recent topics or research findings about a subject. Historical data about a subject can sometimes be found by consulting the back issues of yearbooks.

Subject handbooks in the field of education provide summaries of concepts as well as practical and theoretical approaches to specific education topics. Education handbooks are abundant and cover many different aspects of education. Students can consult a reference guide such as American Reference Books Annual, Guide to Reference Books, and A Bibliographic Guide to Educational Research to learn if there is a handbook published that may cover the topic of interest which they are researching.

HANDBOOKS

Two of the items listed below are examples of subject handbooks in education.

Educators' Handbook: A Research Perspective. New York: Longman, 1987.

Provides teachers, teacher educators, staff developers and administrators with ways of thinking about instructional practice that have emerged from current research on teaching and schooling. Divided into five parts each dealing with a particular aspect of teaching with the last part treating professional issues. This part focuses upon issues related to teaching as a profession and includes discussions of the history and effects of collective bargaining, legal obligations of teachers, stress and burnout, and teachers as collaborators in research. Includes

a list of the contributors, a name index and a subject index.

Handbook of Research on Curriculum. New York: Macmillan, 1992.

Focus is on research and scholarship relative to the curriculum of elementary and secondary schools. Very long and comprehensive articles written by curriculum experts. The handbook is divided into four parts: I) Consists of methodological and conceptual issues; II) Treats the many forces both incidental and significant that shape the curriculum; III) Examines the impact of the curriculum on special groups of students; IV) Explores curriculum issues having to do with the conventual subject matter areas. Contains historical background information and name and subject indexes.

Special Education Handbook: An Introductory Reference. Philadelphia, Penn.: Open University Press, 1991.

A British publication that is intended as a basic reference for those who have professional responsibilities in special education. Contains over 1,000 terms that are arranged alphabetically and are concerned mainly with the educational aspects of exceptional children. Most of the entries offer only a brief discussion of the term, alerting the reader to some of the issues and debates which enliven so many topics in special education. The discussion, which follow each of the entries, is usually no more than a single paragraph. The appended references to the articles are minimal.

YEARBOOKS

Subject yearbooks, which are often known as annuals, contain current information in brief descriptive and/or statistical form. Published annually they review the events of specific subject areas during the preceding year.

International Yearbook on Teacher Education. Washington, D.C.: International Council on Education for Teaching, 1984-.

Provides readers with an up-to-date view of current research-based teacher education concepts, activities, and experimentation as observed from an international perspective. Each volume has a distinctive title. Articles are directed towards Africa, Asia, and the United States.

Mental Measurements Yearbook. Highland Park, N.J.: Gryphon, 1939-.

Explains and reviews commercially published tests. Each new edition covers those reviews published since the previous edition. The tests are arranged by subject and each entry includes the test's title, target group, publication dates, number of pages, price, time allotted for completion, scoring services, author(s), and publisher. Most entries have essays explaining the administering and scoring

procedures as well as discussions about a test's strengths and weaknesses. Indexes of periodicals and publishers cited, titles, authors, reviewers, and contents by subject and volume are included.

Yearbook of Educational Law. Topeka, Kan.: National Organization on Legal Problems in Education, 1972-.

Each yearbook covers laws and court cases relating to specific areas of education. The areas covered differ from year to year depending upon the cases which have been heard in a court of law. Each edition includes a table of cases and name/subject indices.

Assignment for Chapter 5

1. Give a brief explanation of how a yearbook differs from a handbook?

2. Using the Educators' Handbook, find an article about "classroom management and discipline" and give the name of the author of the article and the page numbers on which this information is located.

3. Using the score index in the latest edition of the Mental Measurement Yearbook, find a test treating cerebral mode dominance and

   a) Give the name of the test and its entry number.

   b) What is the purpose of the test?

   c) Name(s) of the author or authors.

Chapter 6

BIBLIOGRAPHIES

Objective 1: Given a subject, students will locate a bibliography on a subject.

Objective 2: Given a subject, students will identify a list of books on a subject.

Bibliographies are lists of sources arranged by subject, author, title, date or other grouping. They may include listings of books, journals, manuscripts, nonprint media, etc. Bibliographies are important because they save researchers time and because they provide researchers with substantive lists of sources on which further research can be based.

Students should always record accurately the complete citations when compiling their bibliographies. The standard bibliographic citation form for journal articles includes author, title, journal name, volume, issue number, and date of publication. Bibliographic citations sometimes contain a brief summary of an article's or a book's contents which is helpful in determining the item's usefulness to a researcher.

Bibliographies usually appear either appended to articles or books while others are book-length in scope. A bibliography of bibliographies is an aid that is used in locating bibliographies on a particular subject. The following sources lists both appended and book-length bibliographies:

Bibliographic Index. New York: H.W. Wilson, 1937-.

This work lists subject bibliographies having at least fifty citations. Bibliographies may be published as book length works or as parts o f b o o k s or articles. This index includes sources in English and west European languages. Published in April, August, and as a cumulated volume in December. This index is also available online.

Books In Print. New York: Bowker. Annual.

Lists all types of books covering all topics that are currently in print. It does not include books not published or exclusively distributed in the U.S.; unbound material, pamphlets and booklets; periodicals and serials; books sold only to schools; sheet music or manuscripts on CD-ROMs. Available online.

Ethics and the Professor: An Annotated Bibliography 1970-1985. New York: Garland, 1988.

Contains monographs, essays in books, journal articles, newspaper editorials, and proceedings published from 1970 to 1985. Covers the following subjects areas: value clarification, stages of moral development, athletics

and moral responsibility, minimum competency testing, plagiarism, stress and burnout, faculty and teacher contracts, collective bargaining, religion in the schools, professional conduct and more. Entries are annotated and each chapter contains an overview. Has title, author, and subject/key word indexes.

El-Hi Textbooks in Print. New York: Bowker, Annual.

Contains a comprehensive list of elementary, junior and senior high school textbooks, pedagogical books and reference books that are in print. Consists of four sections. The main index is the subject index which is arranged by 22 subject categories. There are also author, title and series indexes.

Assignment for Chapter 6

1. Locate a bibliography about "distance education" and

    a) Give the name of the author(s).

    b) Give the title of the article or book in which the bibliography can be found.

2. Under the subject "laterality" in the 1991 volume of Bibliographic Index, what are the two other subject headings that the reader is asked to consult?

3. Look under the second subject heading and locate an article written by C. J. Fry.

    a) Give the title of the article.

    b) Give the name of the journal, volume number, and page numbers in which this article is located.

4. Using Books In Print, locate a book titled Educating Citizens in a Multicultural Society and

    a) Give the author's name.

    b) Give the name of the publisher.

    c) What year was the book published?

    d) What is its cost?

Chapter 7

INDEXES AND ABSTRACTS

Objective 1: After reading this chapter, students will be able to use the indexes, printed and/or online, listed in this chapter to obtain citations for journal articles on specific subjects.

Objective 2: After reading this chapter, students will be able to locate educational reports on microfiche about specific subjects.

Students consult indexes and abstracts primarily to locate current information contained in journal articles on specific subjects. Indexes may also includenewspaperss, chapters in books, government publications, microfiche collections, etc. This chapter will focus on journal indexes, however, an index to the ERIC microfiche collection will also be included. Indexes and abstracts are published on a regular basis several times a year with annual cumulations. Many indexes are available in printed format but most can now be accessed through online databases and/or on CD-ROMs. Indexes and abstracts are primary research tools because they provide the most current accessible data about a wide range of subjects. Many indexes and abstracts can be accessed online including ERIC, Education Index, Biography index, Bibliographic Index, Social Science Index, PsychINFO, Academic Index, Dissertation Abstracts International, Current Contents, and many more.

Most students are acquainted with the Readers' Guide to Periodical Literature which is an index used to list articles of a general nature in magazines. Other indexes are used to compile articles about specific subjects such as education. The following works are examples of indexes and abstracts relevant to the field of education, and its other closely related disciplines:

A-V Online. Boston, Mass.: SilverPlatter, 1986-.

An online Index containing 430,000 citations to nonprint educational media for all educational levels from pre-school through professional or graduate programs. Covers 16mm films, 35mm filmstrips, overhead transparencies, audio tapes, video tapes, cassettes, slides, 8mm motion picture cartridges, software and CD-ROMs.

Child Development Abstracts and Bibliography. Chicago, Ill.: Society for Research in Child Development, 1927-. Three issue a year.

Includes abstracts from approximately 180 professional periodicals and also reviews book related to the physical, psychological, and educational aspects of growth and development of children. Article entries provide bibliographic citation and brief abstract. Abstracts of articles are grouped by subject categories. Coverage is international and arrangement within each subject category is

alphabetical by author. Each issue includes "Book Notices" which is an annotated list of recently published books and "Books Received" which is an unannotated list of books not yet reviewed. Each issue includes author and subject indexes and a list of journals abstracted in the current issue.

Current Index to Journals in Education. Phoenix, Ariz.: Oryx Press, 1969-. Monthly.

A comprehensive monthly work that indexes articles from approximately 830 education and education-related journals. The main entry volume is arranged by broad subject headings and sequential EJ (Education Journal) number. Entries give title, author, citation to journal, list of descriptors and identifiers, and a descriptive note. CIJE is part of the ERIC system and can be searched on LUIS using the ERIC database. It has author, subject, and journal contents indexes in the back of each volume. This database is available online and on CD-ROM.

Education Index. New York: H.W. Wilson, 1930-. Monthly.

A cumulative index to approximately 500 in the English language covering all aspects in the field of education and education related subject areas. A very good source for historical research in education. Subject and author entries are included in one alphabet in the main body of the index. Entries provide abbreviated bibliographic citations which are arranged under cross-referenced subject headings. Book reviews are arranged by authors' surname in the back of the index. Names of the periodicals indexed are listed in the front of each volume. It is also available online.

Educational Administration Abstracts. Newbury Park, Calif: Sage, 1966-. Quarterly.

Includes the latest information, research findings, and ideas on educational administration from approximately 100 professional journals relative to education and educational administration. Each issue has from 300 to 350 abstracts. There are six broad headings: I. Tasks of Administration; II. Administrative Processes and Organizational Variables; III. Societal Factors Influencing Education; IV. Programs for Educational Administrators; V. Theory and Research; VI. Planning and Futurology. Each major heading is subdivided by subject. Each entry includes bibliographic citation, abstract, and cross references. An author index, journal index, and a list of recent dissertations are contained in each issue.

Exceptional Child Education Resources. Reston, Va.: Council for Exceptional Children, 1969-. Quarterly.

An abstracting service that contains citations of all current special education publications and documents including the gifted. Abstracts journal articles, books, dissertations, research reports, state and federal government

publications and other publications covering all aspects of special education. Entries include the clearing house accession number, bibliographic citation, descriptors and identifiers, and an abstract of contents. Each issue includes a list of more than 200 journals from which articles are selected. Issues include author, title, and subject indexes. Cumulative indexes are contained in the fourth issue of each volume. It is also available online and on CD-ROM.

Higher Education Abstracts. Claremont, Calif: Claremont Graduate School, 1965-. Quarterly.

Until 1984, its title was College Students Personnel Abstracts. Contains abstracts from periodicals, monographs, conference papers, and research reports pertaining to college students, faculty, administrations, and related topics. Arranged under four broad subjects areas: I. Students; II. Faculty; III. Administration; IV. Higher Education. The major subject headings are subdivided. Entries contain bibliographic citation and abstract. Each issue includes author and subject indices.

Physical Education Index. Cape Girardeau, Mo.: Ben Oak Publishing, 1978-. Quarterly.

Indexes state, national, and foreign periodicals on physical education and related subject areas. Entries provide abbreviated bibliographic citations and are arranged under cross-referenced subject headings. Book reviews entries are arranged by authors name in the back of each issue. Directory of periodicals indexed are listed by title and abbreviation in the front.

Psychological Abstracts. Washington, D.C.: American Psychological Association, 1927-.

Indexes and abstracts articles from professional journals, books and book chapters and other documents in psychology. A very useful source for educators in the areas of counseling, child development, learning strategies, and educational psychology. Entries include bibliographic citation and abstract. Author and subject indexes are included in the back of each issue. Main entries are arranged by access number which is provided with each entry in the indexes. The online database version is PsycINFO, and it covers material from 1967 to present. The CD-ROM version is PsycLIT.

Resources in Education. Washington, D.C.: Government Printing Office, 1966-. Monthly.

A monthly abstract journal containing recent reports and literature related to the field of education. This work includes conference papers, research reports, bibliographies, classroom guides, dissertations, and other printed documents excluding periodical articles which are recorded on microfiche. The

main section is the Document Resumes which is bound into a separate subject, author, and institution volume. The Document Resumes is a listing in numerical sequence by ED (ERIC Document) and a six digit number. Entries include ED number, author, title, publisher, date, paging, source and price, a list of descriptors, and an abstract. The index volume includes a subject index, author index, institution index, publication type index. RIE is part of the ERIC system and can be searched online using the ERIC database. This index is also available on CD-ROM.

Assignment for Chapter 7

1. Using Education Index, find a journal article written in 1991 about "school violence."

   a) Give the title of the journal article.

   b) Give the name of the journal and volume number in which the article was found.

   c) Give the date of publication.

2. Using ERIC, find an ED report written about "teacher burnout."

   a) Give the ED number for this report.

   b) How many pages are contained in the report.

   c) Give the date of this report.

3. Using ERIC, find a journal article written about "lateral dominance."

   a) Give EJ number for this article.

   b) Give the name of the journal and its volume number.

4. If available, use either the PsycLIT or PsycINFO database to find a journal article about temperament and academic achievement and give the title of the article, volume number, and date.

Chapter 8

UNITED STATES GOVERNMENT PUBLICATIONS

Objective 1: Given a topic, students will use the Monthly Catalog to identify a United States government publication.

Objective 2: Students will use the legislative histories to locate a law passed by Congress.

This chapter introduces students to United States government publications and covers a few government sources which may be helpful to students involved educational research.

A government publication can be defined as any publication printed at government expense or published by authority of a government body. It may be a book, pamphlet, magazine, periodical or microform. Local, state, federal, and international agencies publish information in the field of education.

Government publications about education contain abundant sources of information that is useful for educators and education students. Depository for government documents receive publications free of charge from the Superintendent of Documents. These documents are usually housed in state, regional, large public libraries and major college and university libraries. There are also many libraries designated as a partial government depositories, and they contain only selected government documents. Depository and partial depository libraries use the Superintendent of Documents Classification System (SuDocs) in organizing government publications in their collections. Primary access to government publications is the Monthly Catalog of United States Government Publications which is helpful to patrons because of its subject approach to information. Government publications can also be searched online. Listed below are two government publications that are important information sources for the researcher.

CIS Annual: Congressional Information Service. CIS/Annual: Index to Publications of the United States Congress. Washington D.C.: James B. Adler, 1970-. Monthly.

Contains the legislative histories which enables researchers to trace the development of a law from its first consideration through its final arrival on the President's desk. An excellent resource for persons concerned with the legislative process. Offers abstracts of the entire range of congressional publications of hearings, reports and other congressional documents. Turn to the index section and obtain the entry number which is used to locate the abstract. The abstract provides the bibliographic citation, which includes the SuDocs number, names of expert witnesses and summaries of the hearings.

Monthly Catalog of United States Government Publications. Washington D.C.: Government Printing Office, 1895-. Monthly.

A current listing of government publications issued by all branches of the federal government. Publications are arranged by the issuing agency with title, date, paging and price for each item. Contains indexes arranged by subject, author/agency and title which provide an entry number to the main section of the catalog. Each entry contains a SuDocs number which is the number needed to locate the publication in the documents collection.

Assignment for Chapter 8

1. Using the 1992 Cumulative/Subject Index of Monthly Catalog, look under the subject Collective Bargaining-College Teachers-United States and find a entry by Robert Birnbaum.

    a) Give the title and classification number of this entry.

    b) Does your university/college own a copy of this document?

    Yes. No.

2. Using the 1993 Legislative Histories volume of the CIS/Annual, find the Public Law "Student Aid and Higher Education Programs, Technical Amendments" which amended the Higher Education Act of 1965.

    a) Give the number of the public law.

    b) When was the law approved?

    c) What Congress approved this law?

Chapter 9

DIRECTORIES

Objective 1: Given the name of an education association, students will locate its address.

Objective 2: Given the name of a contemporary educator, students will use a biographical directory to gather information about the person.

Objective 3: Students will locate information about a foundation intheirr state.

Objective 4: Students will locate a local research center.

Directories are easier to use than most other reference works because their subject matter and scope are usually clearly defined. There are many different types of directories including local, governmental, institutional, and professional. Directories usually contain lists of persons, businesses, agencies and their addresses, telephone numbers, biographical sketches, and other concise bodies of data. The directories listed below indicate educational agencies, current information about associations, sources for obtaining grants, and biographical information about educators.

Directory of Education Associations. Washington, D.C.: U.S. Department of Education, 1977-. Annual.

Includes national and regional education associations, national honor and professional associations, state education associations, foundations, religious education associations, and international education associations. Arrangement is alphabetical by the name of the association within each of the six previously named sections. The address, telephone number, chief officers and publications are given for each association. A general index is included.

Encyclopedia of Associations. Detroit, Mich.: Gale Research Company, 1956-. Biennially.

It contains the names of over 30,000 national and international nonprofit trade and professional organization; social welfare and public affairs organizations; religious, sports, and hobby groups; and other types of organizations. Grouped by broad categories and indexed by title, subject, and keyword, the organizations are included in a separate volume by geographic location and executive officers. The information in this directory is also available on CD-ROM.

Foundation Directory. New York: The Foundation Center, Annual.

Provides information on more than 5,000 nongovernmental and nonprofit organizations sponsoring foundations. Entries are arranged by state and by name under each state. Entries include name of foundation, address, telephone number, date established, names of donors, purpose and activities, type of support, limitations, application information, and other pertinent data. Preceding the directory section is an introduction; a glossary; an annotated list of Foundation Center publications; and a list of reference collections operated by the Foundation Center. Appendix A contains a list of Foundations from the previous edition which are not included in the current edition; Appendix B includes the names of private Foundations which are excluded from the Foundation Directory. There is an index to donors, officers, and trustees and a geographic index. There is also a subject index and a foundation name index. This directory can also be accessed online.

Leaders in Education. New York & London: R.R. Bowker, 1974.

Although outdated, it includes significant biographical data about many important leaders in the field of education. It contains 17,000 biographical sketches which are arranged alphabetically by surname. Includes officers and deans of accredited institutions of higher learning, professors of education, directors, leading figures in the public and private school fields, officials of the Office of Education and major educational associations, and authors of major pedagogical books.

Research Centers Directory. Detroit, Mich.: Gale Research Company, Irregular.

A 2 volume set that contains information to over 13,000 university related and nonprofit research organizations that are established on a permanent basis and carry on continuing research in many different disciplines. Includes two volumes arranged into 5 broad categories that are subdivided into 17 sections. Information in each unit includes name, address, name of director, telephone number, date founded, governance, research activities, publications and services. This directory is also available on CD-ROM.

Assignment for Chapter 9

1. Using the Encyclopedia of Associations, find the entry number for the National Council for the Accreditation of Teacher Education.

   a) Who is the president of this organization?

   b) Give the year that NCATE was founded.

   c) How many members does NCATE have?

2. Using the biographical directory, Leaders in Education, determine whether or not John Inkster Goodlad is included as an entry.

   a) Yes. No.

   b) If he is included, how many books has he authored and co-authored?

   c) Where was he born?

3. Using the latest edition of the Foundation Directory find a foundation in your state whose purpose or field of interest is elementary and/or secondary education.

   a) Give the full name of the foundation.

   b) When was the foundation established?

   c) Give its entry number.

4. Using the Research Centers Directory, determine if your college or university has an education research center.

   a) Yes. No.

   b) If your answer is "yes," give the name of the research center and year that it was founded.

   c) What is the research center's sequential entry number?

Chapter 10

STATISTICAL SOURCES

Objective 1: After reading this chapter, students will be able to use a subject guide to statistics to locate an agency and the publication which contains statistics about a given subject.

Objective 2: Students will be able to provide statistical information about a category in the field of education.

Educational research uses statistics extensively to analyze, compare, and verify data related to all levels and categories of education. Excellent sources of statistical data are the various agencies of the United States government which compiles numerous publications which record statistical information. Most of these are available online and on CD-ROM.

Condition of Education. Washington, D.C.: National Center for Educational Statistics, 1975-. Annual.

An annual statistical survey of trends and developments which publishes information on elementary, secondary, and higher education in the United States. Uses 60 indicators to signify the condition of education which are arranged under the following six sections: I. Access, Participation, and Progress; II. Achievement, Attainment, and Curriculum; III. Economic and Other Outcomes of Education; IV. Size, Growth, and Output of Educational Institutions; V. Climate, Classrooms, and Diversity in Educational Institutions; VI. Human and Financial Resources of Educational Institutions. Each volume includes a cumulative four year statistical summary.

Digest of Education Statistics. Washington, D.C.: National Center for Educational Statistics, 1962-. Annual.

Provides a compilation of statistical information covering the broad field of American education from kindergarten through graduate school. Contains information on a variety of educational subjects including the number of schools and colleges, teachers, enrollments, and graduates. This resource is divided into the following seven chapters: I. All Levels of Education; II. Elementary and Secondary Education; III. Postsecondary Education; IV. Federal Programs for Education; V. Outcomes of Education; VI. International Comparisons of Education; and VII. Learning Resources and Technology.

Fact Book on Higher Education. New York: American Council on Education/ Macmillan, Biennial.

Includes data on trends in higher education. Data are arranged in table

format with each accompanied by a map, chart, or graph. The eight topical sections include: I. Demographic and Economic Data; II. Enrollment Data; III. Data on Institutions; IV. Finance Data; V. Data on Faculty and Staff; VI. Student Data; VII. Earned Degrees Data; and VIII. Student Aid Data. Tables are based on the most current available data. Comparative data, some back to the 1930s, are also included.

Projections of Educational Statistics. Washington, D.C.: U.S. National Center for Educational Statistics, 1966-. Biennial.

Contains statistical projections for the next ten years for elementary, secondary, and higher education. Includes tables and charts as well as information about enrollments, graduates and degrees, teacher supply and demand, expenditures and costs.

Statistical Abstract of the United States. Washington, D.C.: Government Printing Office, 1879-. Annual.

This publication is considered to be the standard summary of statistics on the social, political, and economic organization of the United States. This publication is used as a statistical reference and also as a guide to other statistical sources. Contains detailed statistical tables on various education topics including school expenditures; school enrollment; teachers; employment; media centers; SAT scores and ACT scores; school dropouts; higher education; libraries; and other educational issues. Includes a general index.

Statistics Sources: A Subject Guide to Data on Industrial, Business, Social, Educational, Financial and Other Topics for the United States and Internationally. Detroit, Mich.: Gale Research Co., 1878-. Annual.

Provides international coverage of approximately 20,000 specific topics many dealing with education. This publications contains more than 70,000 citations which are arranged alphabetically by subject. The names of states and countries are included as subjects and each country includes the name of a primary source as well as the national statistical office.

Assignment for Chapter 10

1. Consult the 1993 edition of Statistical Abstracts of the United States and give the percentage of females students who earned bachelor degrees in education in 1981.

2. What percentage of females earned bachelor degrees in education in 1991?

3. Using the Digest of Education Statistics, find the "Scholastic Assessment Test" score averages for college-bound high school seniors by sex and

   a) Give the verbal and mathematical scores for males and females for the most current year.

      Male Average Score = Female Average Score =

   b) What is the average annual salaries of teachers in public elementary and secondary schools for the current year.

4. Using the Condition of Education for the current year

   a) Find the difference between the annual starting salaries for males and females In the fields of Social and Behavioral Sciences.

   b) Is there a difference between the average SAT scores in mathematics for male and female college-bound seniors?

      Yes. No.

   c) If a difference exists, what is the difference?

Chapter 11

EDUCATION ONLINE SOURCES

Objective 1: Students will be able to use the ERIC database to locate an article and a research report about a subject.

Objective 2: Students will be able to use various directories to locate online sites in education.

The most important online journal databases used by educators and education' students are ERIC and Education Index. These databases are also available on CD-ROM. The Thesaurus Of ERIC Descriptors list terms that are used for retrieval and indexing literature in ERIC and is an effective source in helping researchers retrieve the most appropriate and current research about their topics. Dissertation Abstracts, General Academic Index, and Psychological Abstracts are just a few of the electronic databases now available in many academic libraries.

There are also directories that contain lists of Internet sites and databases in the field of education. The following are a few examples of such directories:

Gale Directory of Databases. New York: Gale. Annual.

A 2 volume set that provides detailed descriptions of databases available online throughout the world. Contains 59,000 databases of all types and in all subject areas

Databases and Clearinghouses: Information Resources for Education. Columbus, Ohio: National Center for Research in Vocational Education, Resource and Referral Center, 1983.

Contains clearinghouses and databases useful for the field of education. Provides full descriptions of education databases and multidisciplinary databases appropriate for education. Descriptions contain major areas, size, date established, types of source materials, frequency of new materials, and availability of thesauri or search aids. Includes lists of references, subject index, and a resource index.

Internet Yellow Pages. Indianapolis, Ind.: New Riders Publishing, 1996.

Contains a directory of listings of Internet sites from a to Z as well as information about the Internet, the World Wide Web, E-Mail and Usenet News-groups and instructions about how to link to the WWW. There is a list of addresses of sites for education resources, financial aid, home schooling, International education, K-12 education, online teaching and learning, education organizations, research, student resources, and teacher resources.

Assignment for Chapter 11

1. Using the Internet Yellow Pages, find the web site for Ameritech Education Resources and

   a) Give the URL.

   b) Give a brief description of what is included at this site.

2. Using the Gale Directory of Databases, find a database that covers exceptional children and

   a) Give reference number and the page number.

   b) the name and the telephone number of the publisher.

3. If your library has the ERIC database research the topic cerebral dominance (Concept a) and creativity (Concept B).

   a) Use the Thesaurus of ERIC Descriptors and determine if these concepts are descriptors which can be searched as keyword subjects.

   b) Which boolean operator **and**, **or**, **not** describes the relationship between Concept a and Concept B?

4. If your library has an online catalog, perform a keyword search and determine if your library has a book about the "methodology of education research" published after 1988.

   a) What concepts did you use to locate this information?

5. If your library has either the PsycINFO or PsycLIT databases, perform a keyword search using the terms "divorce," "academic achievement," and "children."

   a) How many entries did you find?

   b) Find a journal article written by William F. Hamilton.

   c) Name the journal, volume number, and date in which the article was located.

Chapter 12

PERIODICALS AND NEWSPAPERS

Objective 1: Students will explain the difference between a general periodical and a scholarly journal.

Objective 2: Students will determine if an education journal is owned by their library.

Objective 3: Students will determine the names of the indices in which an education journal listed.

Objective 4: Given a topic and the month/date/year, students will use the New York Times Index to identify an article found in the newspaper.

Periodicals and newspapers are part of a group of publications known as serials which means these publications are issued serially or more than once on a regular basis. Serials include such publications as annuals, yearbooks, continuations, periodicals and newspapers. Periodicals are issued most often on a monthly basis and can be described as either general magazines or scholarly journals.

How does one determine the difference between a general magazine and a scholarly journal? a general magazine usually encompasses a broad scope of subjects that are appealing to readers with various interests. Periodicals such as Time, Newsweek, American Heritage, and Fortune, which are indexed in the Reader's Guide to Periodical Literature, fall into this category. These types of periodicals are useful sources of current events and other types of general information.

Scholarly journals include articles written by specialists in a particular field and are judged and evaluated by the writer's colleagues scholars before acceptance for publication. Many of these journals are published by professional organizations and academic institutions. Articles which are published in scholarly journals represent the most current research in the various academic disciplines. Many scholarly journals also contain reviews of newly published books in the field.

Newspapers are usually issued regularly on a daily, weekly, semiweekly, or biweekly and contain reports and discussions about topics and events of current interest. Feature articles about investigations of important topics and ongoing events as well as editorials representing the newspaper editor's views or opinions about contemporary issues are customary subject matter for newspapers.

Magazines For Libraries: for the General Reader and School, Junior College, College, University and Public Libraries. New York : Bowker, 1992.

An annotated listing by subject of more than 6,600 periodicals. The titles are considered to be some of the best and most useful for the average elementary

or secondary school, public, academic, or special library. The title and subject indices cite entry numbers that are used to locate the titles of the periodicals.

New York Times Index. New York: New York Times, Co., 1913-.

Contains abstracts of the significant news, editorial matter, and special features published in the daily and Sunday editions of the New York Times newspaper.

Assignment for Chapter 12

1. Explain the difference between a general periodical and a scholarly journal.

2. Does your library subscribe to the Journal of Higher Education?

   a) Yes. No.

   b) List the titles of the indexes in which this periodical is listed?

   c) Is this a refereed journal?

4. Under the topic, "Colleges and Universities," in the New York Times Index, find and give a brief summary of an article dated January 3, 1995 about the Educational Testing Service.

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